SURGERY

UNDER THE CHARGE OF

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Operation upon Paralytic Feet.—Müller (*Zentralbl. f. Chir.*, 1913, xl, 312) presents an operation for paralytic talipes calcaneus, which is indicated in those cases in which the gastrocnemius and soleus are paralyzed and the other muscles on the posterior side of the leg are preserved. As a substitute for the calf muscles, he takes on the inner side the flexor longus hallucis and on the outer side the peroneus brevis. A longitudinal incision, extending from one side of the limb to the other, is made between the tibia and fibula in front and the tendo-Achilles behind, and extending to the junction of the lateral surface of the tuberosity of the calcaneum and the posterior surface. Above, the incision is deepened to the flexor longus hallucis and peroneus brevis and below to the bony surface of the calcaneum. The latter is denuded of its fibroperiosteal covering and two small holes are drilled transversely through the tuberosity, one close above the other, and both very close to the posterior surface of the bone. Another incision is made along the external border of the foot to expose the tendon of the peroneus brevis which is then separated from its insertion to the fifth metatarsal bone. A fourth incision along the inner border of the foot exposes the tendon of the extensor longus hallucis, so that it can be divided in the middle of the sole of the foot. It is easily followed by passing a grooved director along its sheath from the inner side of the first double or through-and-through incision. The ends of the two divided tendson are brought, one out of each side of the first incision, and each is passed through one of the transverse canals in the tuberosity of the os calcis, so that the tendon of the flexor longus hallucis passes into the mouth of one canal and out of its external opening, and that of the peroneus brevis in the reverse direction through the other bony canal. The end of each tendon is then clamped with a forceps, and while the foot is strongly flexed in the plantar direction, the ends of the tendons are bound together. The two muscles then form a two-headed muscle inserted into the tuberosity of the os calcis. The tendo-Achilles is now shortened so that it will help mechanically to hold up the heel. The foot is kept in strong plantar flexion for four or five weeks, in a plaster cast. After the csat is removed, the foot is gradually brought to a right-angle position by exercises. Gradually plantar flexion is acquired, so that in walking the anterior part of the foot is on the ground and the heel is raised. While not normal, walking becomes not much removed from normal. Müller objects to the usual arthrodesis of the ankle-joint in paralysis of the muscles of the foot and prefers arthrodesis of the astragalotarsal joint. The posterior part of the foot, by this operation, acquires firmness because the astragalus, calcaneus, scaphoid, and cuboid are bound together in one bony mass. The necessary flexion and extension of the ankle-joint are preserved, while all lateral movements are excluded.

Experimental Ligation of the Portal Vein; Its Application to the Treatment of Suppurative Pylephlebitis.—Neuhoff (*Surg., Gynec., and Obstet.*, 1913, xvi, 481) says that the fact that no surgery of the portal vein has as yet developed appears to depend upon the results of animal experimental studies. He made an experimental study, comparing his results with those of other workers, and concludes that experimental complete ligation of the portal vein is immediately fatal. Death results from shock. Apparently normal life is compatible with complete occlusion of the portal vein, if gradually induced. This is true for the human being and the experiment. In the latter, gradual obliteration of the lumen can be successfully induced in a very brief period. The liver remains practically normal with complete occlusion of the portal vein existing for a short time (experimentally), and for very prolonged periods (clinically). The reason for this lies chiefly in the development of a hepatoportal circulation. The latter is demonstrable clinically and experimentally. In the experiment the hepatoportal circulation appears to develop regularly in the gastrohepatic omentum. An active treatment of suppurative pyelephlebitis is suggested on the basis of his summarized results. Ligation of the portal vein, with the modifications embodied in the paper, is the treatment that is advocated. The operation is worthy of a trial in an attempt to improve the results of an affection so regularly fatal.

Studies Concerning the Comparative Value of Non-pedunculated Flaps of Omentum, Peritoneum, and Mesentery, for the Reinforcement of Sutures.—Sasaki (*Deut. Zschr. f. Chir.*, 1913, cxiii, 62) says that peritoneal or mesenteric flaps are of substantial value for suture insufficiency in all abdominal operations. Omental flaps, on the other hand, are not deserving of much attention. The first two can take the place of the Lembert seromuscular suture, the last cannot. The striking difference in the results of the employment of these three kinds of flaps, depends chiefly upon the presence or absence in the flaps of the network of elastic tissue. The chief effect of this elastic tissue lies in the fact that with it the flaps can adapt themselves closely to the underlying layer and in the fact that the specific elasticity presents an unbroken resistance to the internal pressure of the gastrointestinal tube. The healing process can then go on favorably. Omental flaps do not favor these results because of the irregularity of its structure, its abundance of fat, the difficulty with which it applies itself, and its greater mass. Unfavorable conditions accompanied their employment, as contraction or adhesion of the flaps, with often produced restriction of the passage of the intestinal contents. The essentials